

Local needs analysis and assessment

Current regional economic conditions

Large and growing industries

Industry growth trends in Lake County have moderately changed in the last five years. Despite the recent economic downturn, current projections of industry change from 2015 to 2020 show a brighter picture for certain industries in the County. In terms of net job gain or loss, some of the industries that fared the worst between 2004 and 2010 are now projected to be among those with the largest gains. Credit Intermediation and Related Activities (NAICS 522) and Administrative and Support Services (561) each lost more than 2,000 jobs prior to 2010. However, Credit Intermediation and Related Activities (NAICS 522) is projected to gain more than 1,000 jobs in the next five years and Administrative and Support Services is projected to gain more than 5,000. In addition, Hospitals (622) has gone from among the worst to one of the top 10 in terms of job gains. On the other hand, while Amusement, Gambling, and Recreation Industries grew significantly between 2004 and 2010 (with nearly 2,500 new jobs), the job gain from 2015 to 2020 is negligible – only two jobs projected. Professional, Scientific and Technical Services remains a growing industry in Lake County, with gains between 2004 and 2010 as well as 2015 and 2020. The chart below shows the top 10 industries by projected net job gain in Lake County from 2015 to 2020. For each, the top occupations by number employed are listed, including the SOC codes. For more information on the top 10 occupations in each industry, see Appendix A.

Largest net gain in jobs from 2015 to 2020 in Lake County

NAICS	Industry	2015	2020	Change	% Change
561	Administrative and Support Services	32,182	37,186	5,004	16%
	• Landscaping and Groundskeeping workers (37-3011)	4,830	5,159	329	7%
	• Janitors and Cleaners, Except Maids and Housekeeping Cleaners (37-2011)	2,891	3,084	193	7%
	• Laborers and Freight, Stock, and Material Movers, Hand (53-7062)	2,600	3,259	659	25%
541	Professional, Scientific, and Technical Services	24,663	26,691	2,028	8%
	• Management Analysts	1,924	2,120	196	10%
	• Office Clerks, General	1,427	1,482	55	4%
	• Software Developers, Applications	1,282	1,478	196	15%
722	Food Services and Drinking Places	23,274	24,959	1,685	7%
	• Combined Food Preparation and Serving Workers, Including Fast Food	5,920	7,093	1,173	20%
	• Waiters and Waitresses	3,635	3,560	(75)	(2%)
	• Cooks, Fast Food	1,813	1,970	157	9%
621	Ambulatory Health Care Services	11,365	12,548	1,183	10%
	• Dental Assistants	836	866	30	4%
	• Office Clerks, General	746	752	6	1%
	• Receptionists and Information Clerks	745	825	80	11%
522	Credit Intermediation and Related Activities	8,997	10,039	1,042	12%
	• Tellers	1,396	1,522	126	9%
	• Customer Service Representatives	732	879	147	20%
	• Loan Officers	543	615	72	13%
339	Miscellaneous Manufacturing	7,809	8,741	932	12%
	• Team Assemblers	684	785	101	15%
	• Office Clerks, General	381	413	32	8%
	• Machinists	263	309	46	17%
551	Management of Companies and Enterprises	8,691	9,544	853	10%
	• Managers, All Other	438	467	29	7%
	• Office Clerks, General	387	389	2	1%
	• General and Operations Managers	376	412	36	10%

622	Hospitals	9,513	10,278	765	8%
	• Registered Nurses	2,449	2,697	248	10%
	• Nursing Assistants	552	605	53	10%
	• Medical Equipment Preparers	445	467	22	5%
623	Nursing and Residential Care Facilities	7,630	8,390	760	10%
	• Nursing Assistants	1,610	1,700	90	6%
	• Personal Care Aides	838	944	106	13%
	• Licensed Practical and Licenses Vocational Nurses	411	462	51	12%
311	Food Manufacturing	2,858	3,418	560	20%
	• Packers and Packagers, Hand	255	299	44	17%
	• Bakers	191	269	78	41%
	• Food Cooking Machine Operators and Tenders	170	191	21	12%

With few exceptions (Credit Intermediation and Related Activities and Hospitals) these industries are also large and growing in the surrounding counties of Cook, DuPage and McHenry, where a combined 32 percent of Lake County residents work.

This data and the recommendations below come from the EMSI system. For comparison, the most recent IDES tables on industry and occupational projections are included at the end of this section.

Possible opportunities for training programs

From the industry and occupational analysis, three areas stand out as considerations for planned training investments by the Board: computer support, healthcare and manufacturing. These are not the only industries (or segments within industries) with projected growth or occupations expected to expand. However, these are groupings of occupations that have a steady number of projected annual openings, they require only moderate education, and they pay higher wages or are a series of occupations that lead to higher wages.

Computer support

Professional, Scientific and Technical Services includes quite a few occupations with higher median hourly earnings; for example, both Computer User Support Specialists (15-1151) and Computer Network Support Specialists 15-1152) are expected to grow by 2020, require moderate education (less than a bachelor's degree) and have median earnings of more than \$25 per hour. Job gains predicted in other large and growing industries, including Credit Intermediation and Related Activities and Management of Companies and Enterprises, require only moderate education but pay higher hourly wages are also covered by these two occupations. All of these industries have a location quotient higher than one, meaning they are slightly concentrated in Lake County as compared to the rest of the nation.

These occupations require similar competencies, with knowledge in Computers and Electronics, Customer and Personal Service, Clerical, English Language, Engineering and Technology and Telecommunications. The most important skills include Reading Comprehension, Critical Thinking, Active Listening, Monitoring, Speaking and Instructing.

Healthcare

Several healthcare industries are projected to grow in Lake County – Ambulatory Health Care Services, Hospitals and Nursing and Residential Care Facilities. These industries include a range of occupations, including low-wage occupations like Home Health Aides (31-1101) and Nursing Assistants (31-1014), mid-wage occupations like Licensed Practical and Vocational Nurses (29-2061) and higher-wage occupations like Registered Nurses. All of these occupations will see gains in Lake County, pointing to the potential for a career pathway in nursing.

These occupations require competencies including knowledge of Psychology, Customer and Personal Service, Therapy and Counseling, Education and Training, Medicine and Dentistry, Mathematics, English Language, and Administration and Management and skills in Social Perceptiveness, Reading Comprehension, Coordination, Speaking, Critical Thinking, and Service Orientation.

Manufacturing

The large and growing manufacturing industries – Miscellaneous Manufacturing and Food Manufacturing – also suggest a promising area of focus. There are several occupations in these industries, such as First-Line Supervisors of Production and Operating Workers (51-1011) and Industrial Engineering Technicians (17-3026), that are expected to grow by 2020, require moderate education and provide median earnings of more than \$25 per hour. Many of these are in Medical Equipment and Supplies Manufacturing, which has a particularly high location quotient (more than eight), indicating a specialization in Lake County and the added benefit that the industry likely brings high economic benefit into the County. The largest employers in this field are Baxter Healthcare Corp, Baxter International, Inc. and Abbott Laboratories.

These occupations require knowledge in Mechanical, Engineering and Technology, Design, Computers and Electronics, Physics, Production and Processing, and Administration and Management, and skills in Judgment and Decision Making, Reading Comprehension, Complex Problem Solving, Critical Thinking, Monitoring, Management of Personnel Resources, Time Management, Coordination and Speaking.

Appendix B shows more complete information on the knowledge, skills and abilities required for the most important occupations in Computer Support, Healthcare and Manufacturing. A more in-depth look into this information could be valuable in designing training programs.

Other industries

Not all large and growing industries in Lake County are well suited to training investments, but could provide other advantages for job seekers.

Administrative and Support Services is not likely to be a good industry to focus on for training programs, because the vast majority of the job gains projected is in Temporary Help Services, which provides limited opportunities for career advancement, but could help individuals with barriers to employment gain work experience. Because the field is growing so rapidly, the Workforce Board and the core partners may want to explore opportunities to partner with temp agencies.

The gains in Food Services and Drinking Places are mainly in Restaurants and Other Eating Places, which includes occupations that require little education – usually less than a high school diploma – and low median hourly earnings. So this industry is not likely to yield long-term career pathways or family supporting wages, but could provide starter jobs for certain groups, including disconnected older youth and individuals with no work experience and/or limited skills. These also maybe flexible jobs for students who need part-time work while attending classes.

2022 Employment Projections for Lake County

North American Industrial Classification System (NAICS)		Base Year Employment 2012	Projected Year Employment 2022	Change 2012-2022	Annual Compound Growth Rate
Code	Title				
000000	TOTAL, ALL INDUSTRIES	351,133	404,761	53,628	1.43
100000	Self Employed and Unpaid Family Workers	13,566	14,871	1,305	0.92
110000	Agricultural Production, Total	950	1,062	112	1.12
120000	Total Nonfarm	336,617	388,828	52,211	1.45
210000	Natural Resources and Mining	64	74	10	1.46
230000	Construction	9,996	12,579	2,583	2.33
300000	Manufacturing, Total	48,899	47,668	-1,231	-0.25
310000	Non-Durable Goods Manufacturing, Total	25,412	23,483	-1,929	-0.79
326900	Durable Goods Manufacturing, Total	23,487	24,185	698	0.29
400000	Trade, Transportation, and Utilities	71,991	83,026	11,035	1.44
420000	Wholesale Trade	23,834	27,182	3,348	1.32
440000	Retail Trade	39,937	46,228	6,291	1.47
460000	Transportation & Warehousing & Utilities	8,220	9,616	1,396	1.58
510000	Information	3,715	3,823	108	0.29
519900	Financial Activities	19,468	22,659	3,191	1.53
520000	Finance and Insurance, Total	16,125	18,543	2,418	1.41
530000	Real Estate and Rental and Leasing	3,343	4,116	773	2.10
539900	Professional and Business Services	60,549	80,139	19,590	2.84
540000	Professional, Scientific & Tech. Services	21,702	28,563	6,861	2.79
550000	Management of Companies and Enterprises	7,759	9,572	1,813	2.12
560000	Administrative & Waste Mngmnt. Services	31,088	42,004	10,916	3.06
600000	Educational and Health Services	60,298	68,015	7,717	1.21
610000	Educational Services, Private & Public	28,147	30,182	2,035	0.70
620000	Health Care & Social Assistance	32,151	37,833	5,682	1.64
700000	Leisure and Hospitality	30,040	35,318	5,278	1.63
710000	Arts, Entertainment and Recreation	7,001	7,593	592	0.82
720000	Accommodation and Food Services	23,039	27,725	4,686	1.87
800000	Other Services	12,365	14,129	1,764	1.34
810000	Personal & Other Services	12,365	14,129	1,764	1.34
900000	Government, Total	19,232	21,398	2,166	1.07

2022 Occupational Projections for Lake County

Title	Base Year Employment 2012	Projected Year Employment 2022	Employment Change 2012-2022 Percent	Average Annual Job Openings Due to		
				Growth	Replacements	Total
Total, All Occupations	351,133	404,761	15.27	5,510	8,263	13,773
Management Occupations	24,722	28,078	13.57	342	503	845
Business & Financial Operations Occupations	19,756	24,309	23.05	456	377	833
Computer & Mathematical Occupations	9,617	12,310	28.00	269	157	426
Architecture & Engineering Occupations	6,041	6,611	9.44	60	140	200
Life, Physical & Social Science Occupations	3,285	3,398	3.44	19	86	105
Community & Social Services Occupations	3,961	4,531	14.39	57	91	148
Legal Occupations	1,844	2,066	12.04	22	30	52
Education, Training & Library Occupations	21,900	23,707	8.25	181	476	657
Arts/Design/Entertainment, Sports/Media Occs	4,847	5,489	13.25	66	118	184
Healthcare Practitioners & Technical Occs	15,482	17,749	14.64	228	319	547
Healthcare Support Occupations	7,668	9,522	24.18	188	146	334
Protective Service Occupations	6,901	8,132	17.84	123	186	309
Food Preparation & Serving Occupations	23,928	28,638	19.68	471	882	1,353
Building & Grounds Cleaning & Maint. Occs	15,817	19,010	20.19	319	329	648
Personal Care & Service Occupations	10,747	12,443	15.78	171	255	426
Sales & Related Occupations	39,131	45,144	15.37	602	1,157	1,759
Office & Administrative Support Occupations	52,101	58,119	11.55	648	1,181	1,829
Farming, Fishing & Forestry Occupations	774	834	7.75	6	22	28
Construction & Extraction Occupations	11,710	14,573	24.45	286	204	490
Installation, Maintenance & Repair Occs	11,860	13,724	15.72	189	271	460
Production Occupations	33,038	35,149	6.39	284	683	967
Supervisors, Production Workers	2,124	2,130	0.28	1	30	31
1st-LineSpvrs/Mgrs Prod/Operating Workers	2,124	2,130	0.28	1	30	31
Assemblers & Fabricators	7,333	8,268	12.75	94	116	210
Transportation & Material Moving Occupations	26,003	31,225	20.08	523	647	1,170

Existing and emerging high-priority occupations

The table below shows the projected change in Lake County's high-priority occupations by 2020, as well as the projected annual turnover in each occupation. The change presents the net increase or decrease in jobs for each profession from 2015 to 2020, while the annual turnover indicates the number of new hires in this occupation each year, due to added jobs, job attrition, retirement, etc. Occupations that warrant particular attention are marked with an asterisk (*).

Career Field	Code	Occupation	2015 jobs	2020 jobs	Change	Annual Openings
Architecture & Engineering	17-2071	Electrical Engineers	213	238	25	10
	17-2112	Industrial Engineers	1,529	1,547	18	49
	17-2141	Mechanical Engineers	667	705	38	31
	17-2199	Engineers, All Other	527	541	14	13
Business & Finance	13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	850	873	23	20
	13-1041	Compliance Officers	362	391	29	13
	13-1071	Human Resources Specialists	1,263	1,390	127	51
	13-1081	Logisticians	477	525	48	16
	13-1111	Management Analysts	3,233	3,455	222	97
	13-1151	Training and Development Specialists	474	523	49	19
	13-1161	Market Research Analysts and Marketing Specialists	1,381	1,573	192	59
	13-1199	Business Operations Specialists, All Other	3,860	3,976	116	77
	13-2011	Accountants and Auditors	3,376	3,565	189	143
	13-2051	Financial Analysts	1,028	1,101	73	43
	13-2052	Personal Financial Advisors	896	946	50	36
	21-1021	Child, Family, and School Social Workers	725	730	5	17
Computer	15-1121	Computer Systems Analysts	1,473	1,661	188	65
	15-1131	Computer Programmers	1,134	1,157	23	37
	15-1132	Software Developers, Applications	3,501	3,733	232	94
	15-1133	Software Developers, Systems Software	1,249	1,310	61	29
	15-1141	Database Administrators	295	316	21	10
	15-1142	Network and Computer Systems Administrators	921	976	55	27
	15-1151	Computer User Support Specialists*	1,467	1,607	140	53
	15-1199	Computer Occupations, All Other	1,027	1,050	23	22
	15-2031	Operations Research Analysts	360	403	43	17
	29-1141	Registered Nurses*	4,544	4,982	438	184
	29-2012	Medical and Clinical Laboratory Technicians	370	401	31	16
	29-2034	Radiologic Technologists	265	289	24	9
	29-2052	Pharmacy Technicians	1,371	1,570	199	55
	29-2061	Licensed Practical and Licensed Vocational Nurses*	930	1,059	129	52
	29-2071	Medical Records and Health Information Technicians	290	323	33	15
	29-2081	Opticians, Dispensing	278	311	33	15
Healthcare Support	31-1011	Home Health Aides	797	1,065	268	74
	31-1014	Nursing Assistants	2,709	2,939	230	101
	31-9091	Dental Assistants	881	921	40	27
	31-9092	Medical Assistants	1,019	1,148	129	47
Maintenance & Repair	49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	307	333	26	14
	49-9041	Industrial Machinery Mechanics	710	779	69	36
	49-9043	Maintenance Workers, Machinery	533	549	16	10
	49-9071	Maintenance and Repair Workers, General	3,220	3,364	144	93
	49-9099	Installation, Maintenance, and Repair Workers, All Other	645	669	24	16

Management	11-1021	General and Operations Managers	7,244	7,463	219	182
	11-2021	Marketing Managers	1,313	1,351	38	36
	11-3021	Computer and Information Systems Managers	1,689	1,759	70	39
	11-3031	Financial Managers	2,151	2,227	76	59
	11-3061	Purchasing Managers	468	467	(1)	11
	11-3121	Human Resources Managers	541	576	35	22
	11-9051	Food Service Managers	679	686	7	17
	11-9111	Medical and Health Services	562	609	47	25
Office & Administrative	43-1011	First-Line Supervisors of Office and Administrative Support Workers	2,480	2,681	201	103
	43-3021	Billing and Posting Clerks	751	839	88	33
	43-3051	Payroll and Timekeeping Clerks	460	492	32	17
	43-4051	Customer Service Representatives	7,204	7,732	528	311
	43-5011	Cargo and Freight Agents	269	260	(9)	7
	43-5061	Production, Planning, and Expediting Clerks	829	861	32	28
	43-6011	Executive Secretaries and Executive Administrative Assistants	2,280	2,255	(25)	27
Production	51-1011	First-Line Supervisors of Production and Operating Workers*	2,023	2,045	22	36
	51-2092	Team Assemblers	3,304	3,666	362	129
	51-3092	Food Batchmakers	72	109	37	11
	51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	426	493	67	26
	51-4012	Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	310	347	37	17
	51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	670	639	(31)	15
	51-4041	Machinists	1,987	2,160	173	83
	51-4121	Welders, Cutters, Solderers, and Brazers	672	737	65	31
	51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	1,857	1,979	122	67
	51-9111	Packaging and Filling Machine Operators and Tenders	585	661	76	30
	51-9198	Helpers--Production Workers	657	803	146	42
	51-9199	Production Workers, All Other	1,136	1,254	118	56
Sales	41-1011	First-Line Supervisors of Retail Sales Workers	2,693	2,756	63	86
	41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	2,515	2,580	65	64
	41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	4,760	4,935	175	136
Science	19-2031	Chemists	936	920	(16)	24
Transportation	53-3032	Heavy and Tractor-Trailer Truck Drivers	2,218	2,326	108	62
	53-3033	Light Truck or Delivery Services Drivers	1,728	1,812	84	46
	53-7051	Industrial Truck and Tractor Operators	1,161	1,218	57	39
	53-7064	Packers and Packagers, Hand	3,058	3,250	192	122

*These occupations are worth additional focus due to growth, a high number of annual openings, the typical entry level education (more than high school but less than a bachelor's degree) and high entry-level and median hourly wages. They all have entry-level wages of more than \$15 per hour and median wages of more than \$22 per hour.

Current workforce demographics

Population overview

The population of Lake County is expected to increase by 2020 to 711,953 from 706,406 in 2015 (an increase of about 8 percent). This increase is heavily skewed toward older individuals, with an increase of 18,514 adults age 65 and over, offset by a decrease of individuals in the youngest age brackets.

Age and population change¹

		2015	2020	Change	% Change
Youth	24 and younger	249,159	237,470	(11,689)	(5%)
Adults	25 to 64	367,908	366,631	(-1,278)	(0.3%)
Older individuals*	65 and older	89,338	107,852	18,514	21%

Although projections are not available for the specific age groupings relevant to WIOA, the chart below shows census data from 2010 to give a general idea of the distribution of youth. Numbers of adults from the same data set are included for comparison.

Distribution of youth in Lake County in 2010²

	2010	% of all youth	% of total population
All youth (24 and younger)	255,827	100%	36%
13 and younger	146,002	57%	21%
14 to 15	23,208	9%	3%
16 to 20	53,304	21%	8%
21 to 24	33,313	13%	5%
Adult (25 to 64)	374,542	N/A	53%
Older individuals (65 and older)	73,093	N/A	10%
Total population	703,462		

The racial and ethnic make-up of the county will not change dramatically, although a decrease in the white population and an increase in the Hispanic population are projected.

Race and population change¹

	2015	2020	Change	% Change
White	579,774	576,565	(3,208)	(0.6%)
Asian	52,192	57,272	5,080	10%
Black	53,249	55,179	1,930	4%
Two or more races	14,377	15,709	1,331	9%
American Indian or Alaskan Native	6,178	6,670	492	8%
Native Hawaiian or Pacific Islander	636	557	(78)	(12%)

Ethnicity and population change¹

	2015	2020	Change	% Change
Hispanic	150,344	159,846	9,502	6%
Non-Hispanic	556,062	552,106	(3,955)	(0.7)

Note: In the tables above, race and ethnicity are considered separately. So for example, the “white” population includes both Hispanic and non-Hispanic individuals who identify as white, and the Hispanic population includes people of all races.

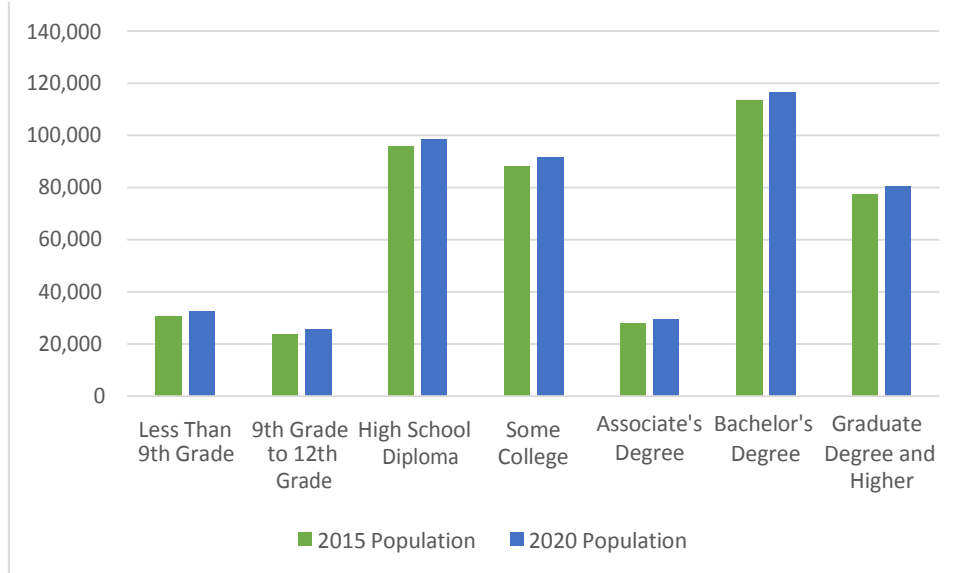
- Key point: With a sharp increase in individuals reaching retirement age, Lake County could see a general workforce shortage in coming years.

Education, employment and income

Educational attainment

Lake County's population is more educated than the national average, with 42 percent of adults holding a bachelor's degree or higher, compared to 31 percent across the state and 29 percent nationally. Even so, this leaves 25 percent of Lake County residents with some college or an associate's degree, 21 percent with only a high school diploma and 12 percent with less than a 12th-grade education. This distribution is not expected to change significantly in the next five years.

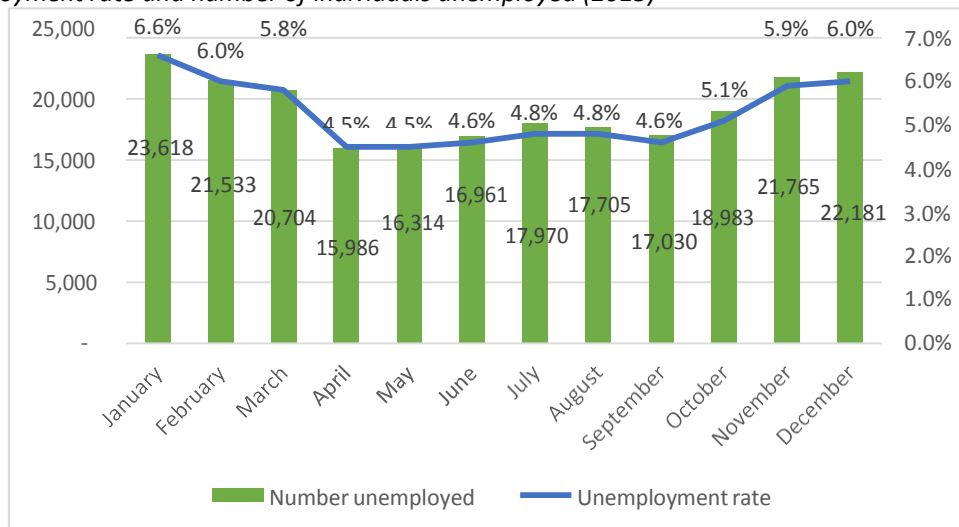
Educational attainment¹



Unemployment, income and poverty

Lake County's unemployment rate is currently 5.9 percent (not seasonally adjusted), which is on par with the state-wide rate. From the chart below illustrating the unemployment rate in Lake County for the twelve months in 2015, it appears to have a significant seasonal dip as well.

Lake County Unemployment rate and number of individuals unemployed (2015)³



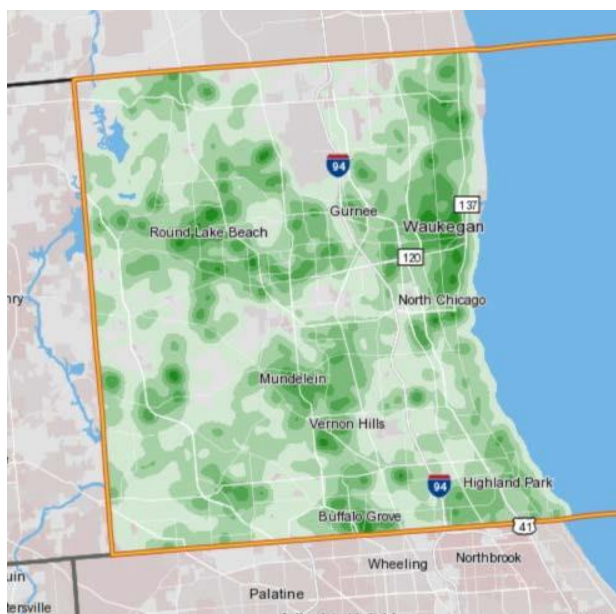
A total of 342,289 individuals in Lake County are working.⁵ The median household income is \$77,873, well above the state median of \$57,116. However, 7.2 percent of all Lake County families are below the poverty line. Counting only single-parent families with children, the poverty rate is much greater, at 30.3 percent of families.⁴ The table below shows more detail on where different types of families fall relative to the poverty line.

Families by percent of poverty level⁴

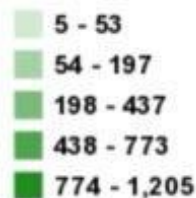
	Below poverty line	100 to 130% of poverty line	130 to 150% of poverty line	150 to 185% of poverty line	Above 185% of poverty line	Total
Total families	12,978 (7.2%)	5,770 (3.2%)	4,643 (2.6%)	7,655 (4.3%)	148,430 (82.7%)	179,476
Married-couple families with children	3,538 (4.8%)	2,383 (3.3%)	2,516 (3.4%)	3,516 (4.8%)	61,314 (83.7%)	73,266
Single-parent families with children	7,019 (30.3%)	2,026 (8.7%)	1,189 (5.1%)	2,220 (9.6%)	10,748 (46.3%)	23,202

The map below shows where the lowest-earning workers live – those earning less than \$15,000 per year.

Concentration of workers earning less than \$15,000 per year⁶



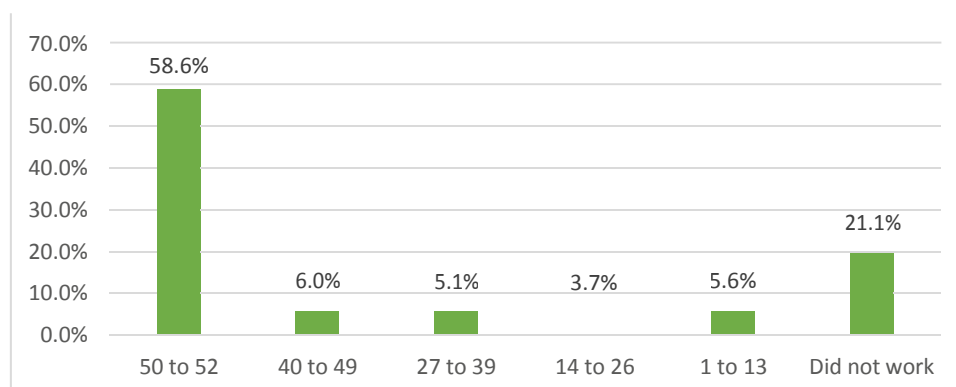
Workers per square mile:



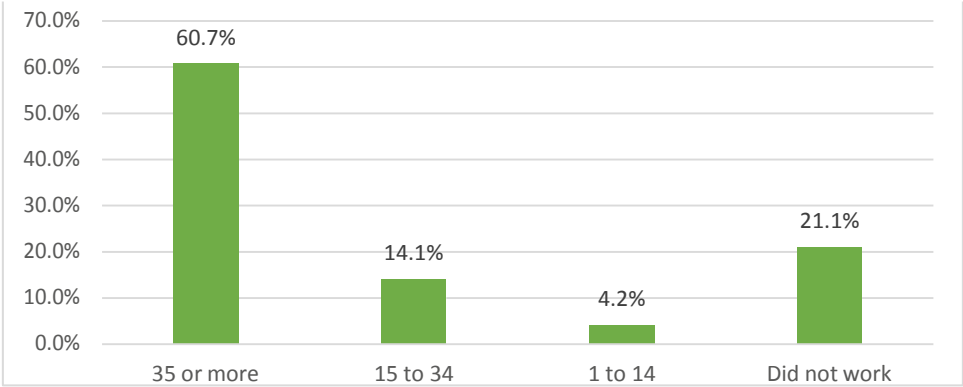
Part-time and seasonal employment

Of the population of Lake County residents between ages 16 and 64 – a total of 461,859 individuals – about 66,000 work seasonally,* between one and 39 weeks per year. About 84,000 worked part-time, or one to 34 hours per week.⁴ The charts below show the breakdown of workers by weeks and hours worked, respectively.

Weeks worked per year⁴



Hours worked per year⁴



Commuting patterns

The majority of Lake County workers (68 percent) work within the county. Of the 96,884 workers who leave the county for employment, most work in Cook County – 24 percent of all workers. An additional four percent work in DuPage or McHenry Counties. A small number (2,239 workers) are employed in other Illinois counties.

- ➔ Key point: Due to the relatively large number of Lake County residents who work in Cook County, industry and employment trends in Cook County should also inform Lake County’s workforce strategies.

Special populations

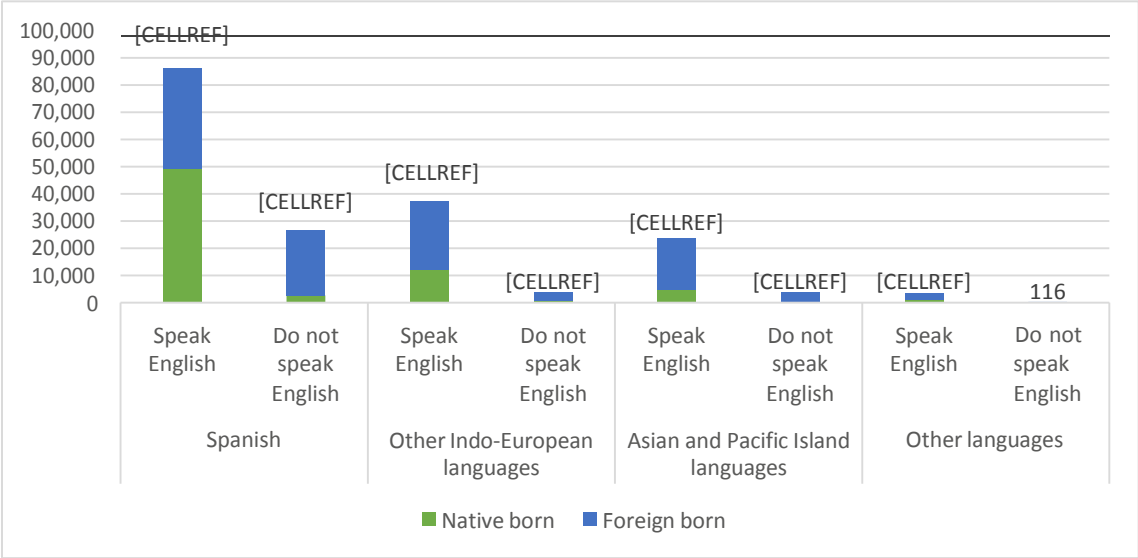
Individuals with disabilities (adult and youth)*

Overall, 8.6 percent of Lake County residents have a disability. This includes 3.2 percent of those under 18, 6.3 percent of those 18 to 64, and 32.1 percent of those 65 and older.⁴

ESL and those facing substantial cultural barriers*

Most residents of Lake County, about 72 percent, speak only English. Figure 6 shows the breakdown of the population that speaks other languages. For the purposes of this chart, those counted as speaking English reported speaking English “very well” or “well,” and those counted as not speaking English reported speaking English “not well” or “not at all.” Although it is difficult to estimate who faces cultural barriers, the number of foreign-born individuals who do not speak English can be used as a proxy.

English proficiency⁴



Overall, there are 34,380 individuals who do not speak English, 31,014 (90 percent) of whom are foreign born and 26,855 (78 percent) of whom speak Spanish. It also seems there may be a large, undocumented Spanish speaking population in Lake County as well. Adult education and English as a second language (ESL) class administrators across the County report having a significant number of undocumented individuals participating.

Homeless*

In 2015, there were 62 households, accounting for 189 individuals, living in emergency and transitional shelter for the homeless.⁷ While this is a very small percentage of the overall population, it is one of the “targeted populations” in the Illinois State WIOA Plan.

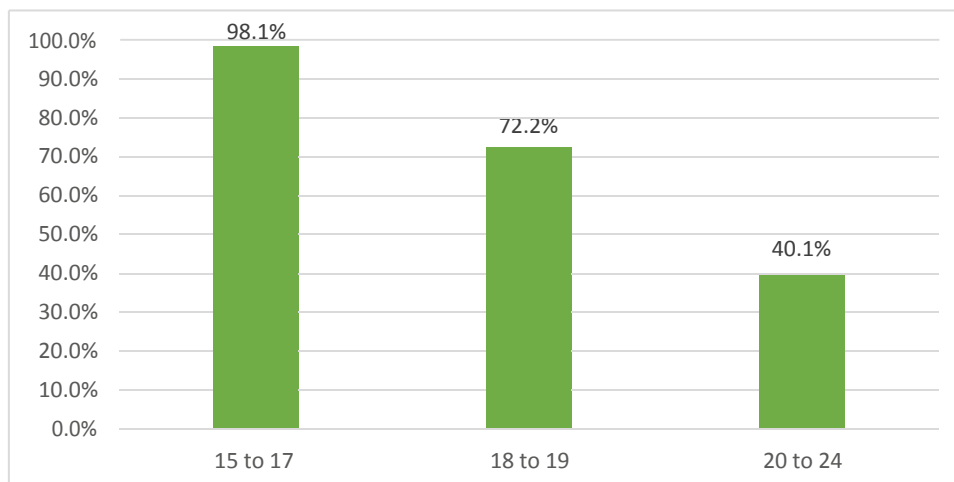
Single Parents*

There are 20,504 single-parent households in Lake County (meaning single adults living with their child or children under 18 years old). This represents eight percent of all Lake County households. Of single-parent families, 75 percent have female heads of household.⁴

In-School Youth

A high percentage of Lake County youth are enrolled in school, particularly among teenagers. The chart below shows the percentage of youth enrolled in school by age, which leaves a small proportion of out-of-school youth.*

Youth enrolled in school⁴



Notes on demographics section (This will be changed into end document reference page in final draft)

Populations designated as “Targeted Populations” in the Illinois State WIOA Plan are marked with an asterisk (*).

Sources:

- 1 – EMSI
- 2 – US Census 2010
- 3 – IDES
- 4 – ACS (2010-2014 5-year estimates)
- 5 – Kids Count data as of 2014
- 6 – U.S. Census OnTheMap application
- 7 – Lake County Coalition for the Homeless Point-In-Time count as of 1/28/15

A detailed map of the Chicago metropolitan area, including parts of Cook County, DuPage County, and Lake County, Illinois. The map shows major highways (Interstates 94, 55, 41, 290, and various state routes like 12, 130, 131, 132, 134, 137, 14, 22, 43, 45, 53, 59, 60, 83, 120, 173, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963,

Appendix A – Staffing patterns in top industries

NAICS	Industry	SOC	Description	Employed in Industry (2015)	Employed in Industry (2020)	Change (2015 - 2020)	% Change (2015 - 2020)	% of Total Jobs in Industry (2015)	Median Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
561	Administrative and Support Services	37-3011	Landscaping and Groundskeeping Workers	4,830	5,159	329	7%	15.4%	\$12.09	Less than high school	None	Short-term on-the-job training
561	Administrative and Support Services	37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	2,891	3,084	193	7%	9.2%	\$12.03	Less than high school	None	Short-term on-the-job training
561	Administrative and Support Services	53-7062	Laborers and Freight, Stock, and Material Movers, Hand	2,600	3,259	659	25%	8.3%	\$12.72	Less than high school	None	Short-term on-the-job training
561	Administrative and Support Services	43-9061	Office Clerks, General	2,503	2,777	274	11%	8.0%	\$15.70	High school diploma or equivalent	None	Short-term on-the-job training
561	Administrative and Support Services	43-4051	Customer Service Representatives	1,211	1,440	229	19%	3.9%	\$18.05	High school diploma or equivalent	None	Short-term on-the-job training
561	Administrative and Support Services	53-7064	Packers and Packagers, Hand	795	984	189	24%	2.5%	\$10.07	Less than high school	None	Short-term on-the-job training
561	Administrative and Support Services	51-2092	Team Assemblers	647	864	217	34%	2.1%	\$12.73	High school diploma or equivalent	None	Moderate-term on-the-job training
561	Administrative and Support Services	37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	571	603	32	6%	1.8%	\$18.08	High school diploma or equivalent	Less than 5 years	None
561	Administrative and Support Services	43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	539	665	126	23%	1.7%	\$16.49	High school diploma or equivalent	None	Short-term on-the-job training
561	Administrative and Support Services	11-1021	General and Operations Managers	496	560	64	13%	1.6%	\$49.28	Bachelor's degree	Less than 5 years	None

541	Professional, Scientific and Technical Services	13-1111	Management Analysts	1,924	2,120	196	10%	7.8%	\$35.80	Bachelor's degree	Less than 5 years	None
541	Professional, Scientific and Technical Services	43-9061	Office Clerks, General	1,427	1,482	55	4%	5.8%	\$15.70	High school diploma or equivalent	None	Short-term on-the-job training
541	Professional, Scientific and Technical Services	15-1132	Software Developers, Applications	1,282	1,478	196	15%	5.2%	\$38.37	Bachelor's degree	None	None
541	Professional, Scientific and Technical Services	23-1011	Lawyers	1,208	1,268	60	5%	4.9%	\$59.14	Doctoral or professional degree	None	None
541	Professional, Scientific and Technical Services	13-2011	Accountants and Auditors	1,158	1,252	94	8%	4.7%	\$34.40	Bachelor's degree	None	None
541	Professional, Scientific and Technical Services	11-1021	General and Operations Managers	757	832	75	10%	3.1%	\$49.28	Bachelor's degree	Less than 5 years	None
541	Professional, Scientific and Technical Services	13-1199	Business Operations Specialists, All Other	586	652	66	11%	2.4%	\$29.33	High school diploma or equivalent	None	None
541	Professional, Scientific and Technical Services	11-9199	Managers, All Other	573	628	55	10%	2.3%	\$51.00	High school diploma or equivalent	Less than 5 years	None
541	Professional, Scientific and Technical Services	43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	566	625	59	10%	2.3%	\$16.49	High school diploma or equivalent	None	Short-term on-the-job training
541	Professional, Scientific and Technical Services	43-3031	Bookkeeping, Accounting, and Auditing Clerks	495	531	36	7%	2.0%	\$18.89	High school diploma or equivalent	None	Moderate-term on-the-job training
722	Food Services and Drinking Places	35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	5,920	7,093	1,173	20%	25.6%	\$8.86	Less than high school	None	Short-term on-the-job training
722	Food Services and Drinking Places	35-3031	Waiters and Waitresses	3,635	3,560	(75)	(2%)	15.7%	\$9.03	Less than high school	None	Short-term on-the-job training
722	Food Services and Drinking Places	35-2011	Cooks, Fast Food	1,813	1,970	157	9%	7.8%	\$9.02	Less than high school	None	Short-term on-the-job training

722	Food Services and Drinking Places	35-2014	Cooks, Restaurant	1,648	1,696	48	3%	7.1%	\$11.30	Less than high school	Less than 5 years	Moderate-term on-the-job training
722	Food Services and Drinking Places	35-1012	First-Line Supervisors of Food Preparation and Serving Workers	1,387	1,582	195	14%	6.0%	\$14.39	High school diploma or equivalent	Less than 5 years	None
722	Food Services and Drinking Places	35-3011	Bartenders	1,142	1,115	(27)	(2%)	4.9%	\$9.00	Less than high school	None	Short-term on-the-job training
722	Food Services and Drinking Places	35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	1,019	1,078	59	6%	4.4%	\$9.07	Less than high school	None	Short-term on-the-job training
722	Food Services and Drinking Places	35-9021	Dishwashers	952	944	(8)	(1%)	4.1%	\$8.91	Less than high school	None	Short-term on-the-job training
722	Food Services and Drinking Places	35-2021	Food Preparation Workers	865	923	58	7%	3.7%	\$9.17	Less than high school	None	Short-term on-the-job training
722	Food Services and Drinking Places	35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	746	742	(4)	(1%)	3.2%	\$9.14	Less than high school	None	Short-term on-the-job training
621	Ambulatory Health Care Services	31-9091	Dental Assistants	836	866	30	4%	7.2%	\$17.84	Postsecondary non-degree award	None	None
621	Ambulatory Health Care Services	43-9061	Office Clerks, General	746	752	6	1%	6.4%	\$15.70	High school diploma or equivalent	None	Short-term on-the-job training
621	Ambulatory Health Care Services	43-4171	Receptionists and Information Clerks	745	825	80	11%	6.4%	\$13.58	High school diploma or equivalent	None	Short-term on-the-job training
621	Ambulatory Health Care Services	31-9092	Medical Assistants	743	845	102	14%	6.4%	\$14.81	Postsecondary non-degree award	None	None
621	Ambulatory Health Care Services	29-1141	Registered Nurses	549	663	114	21%	4.7%	\$31.53	Associate's degree	None	None

621	Ambulatory Health Care Services	29-2021	Dental Hygienists	531	567	36	7%	4.6%	\$32.41	Associate's degree	None	None
621	Ambulatory Health Care Services	43-6013	Medical Secretaries	511	591	80	16%	4.4%	\$16.49	High school diploma or equivalent	None	Moderate-term on-the-job training
621	Ambulatory Health Care Services	39-9021	Personal Care Aides	451	625	174	39%	3.9%	\$10.14	Less than high school	None	Short-term on-the-job training
621	Ambulatory Health Care Services	29-1021	Dentists, General	371	371	0	0%	3.2%	\$93.98	Doctoral or professional degree	None	None
621	Ambulatory Health Care Services	31-1011	Home Health Aides	298	459	161	54%	2.6%	\$10.45	Less than high school	None	Short-term on-the-job training
522	Credit Intermediation and Related Activities	43-3071	Tellers	1,396	1,522	126	9%	16.1%	\$11.77	High school diploma or equivalent	None	Short-term on-the-job training
522	Credit Intermediation and Related Activities	43-4051	Customer Service Representatives	732	879	147	20%	8.4%	\$18.05	High school diploma or equivalent	None	Short-term on-the-job training
522	Credit Intermediation and Related Activities	13-2072	Loan Officers	543	615	72	13%	6.3%	\$23.43	Bachelor's degree	None	Moderate-term on-the-job training
522	Credit Intermediation and Related Activities	43-4131	Loan Interviewers and Clerks	479	534	55	11%	5.5%	\$20.23	High school diploma or equivalent	None	Short-term on-the-job training
522	Credit Intermediation and Related Activities	43-3011	Bill and Account Collectors	454	511	57	13%	5.2%	\$18.43	High school diploma or equivalent	None	Moderate-term on-the-job training
522	Credit Intermediation and Related Activities	11-3031	Financial Managers	366	390	24	7%	4.2%	\$57.96	Bachelor's degree	5 years or more	None

522	Credit Intermediation and Related Activities	43-1011	First-Line Supervisors of Office and Administrative Support Workers	310	359	49	16%	3.6%	\$24.09	High school diploma or equivalent	Less than 5 years	None
522	Credit Intermediation and Related Activities	41-3031	Securities, Commodities, and Financial Services Sales Agents	303	328	25	8%	3.5%	\$34.27	Bachelor's degree	None	Moderate-term on-the-job training
522	Credit Intermediation and Related Activities	43-9061	Office Clerks, General	280	301	21	8%	3.2%	\$15.70	High school diploma or equivalent	None	Short-term on-the-job training
522	Credit Intermediation and Related Activities	13-2041	Credit Analysts	248	275	27	11%	2.9%	\$26.68	Bachelor's degree	None	None
339	Miscellaneous Manufacturing	51-2092	Team Assemblers	684	785	101	15%	9.1%	\$12.73	High school diploma or equivalent	None	Moderate-term on-the-job training
339	Miscellaneous Manufacturing	43-9061	Office Clerks, General	381	413	32	8%	5.0%	\$15.70	High school diploma or equivalent	None	Short-term on-the-job training
339	Miscellaneous Manufacturing	51-4041	Machinists	263	309	46	17%	3.5%	\$18.22	High school diploma or equivalent	None	Long-term on-the-job training
339	Miscellaneous Manufacturing	51-9083	Ophthalmic Laboratory Technicians	260	293	33	13%	3.4%	\$12.45	High school diploma or equivalent	None	Moderate-term on-the-job training
339	Miscellaneous Manufacturing	17-2112	Industrial Engineers	235	265	30	13%	3.1%	\$40.29	Bachelor's degree	None	None
339	Miscellaneous Manufacturing	11-1021	General and Operations Managers	231	259	28	12%	3.1%	\$49.28	Bachelor's degree	Less than 5 years	None
339	Miscellaneous Manufacturing	51-1011	First-Line Supervisors of Production and Operating Workers	216	245	29	13%	2.9%	\$27.57	Postsecondary non-degree award	Less than 5 years	None
339	Miscellaneous Manufacturing	43-4051	Customer Service Representatives	194	219	25	13%	2.6%	\$18.05	High school diploma or equivalent	None	Short-term on-the-job training

339	Miscellaneous Manufacturing	51-2099	Assemblers and Fabricators, All Other	190	213	23	12%	2.5%	\$11.96	High school diploma or equivalent	None	Moderate-term on-the-job training
339	Miscellaneous Manufacturing	51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	190	218	28	15%	2.5%	\$17.61	High school diploma or equivalent	None	Moderate-term on-the-job training
551	Management of Companies and Enterprises	11-9199	Managers, All Other	438	467	29	7%	5.0%	\$51.00	High school diploma or equivalent	Less than 5 years	None
551	Management of Companies and Enterprises	43-9061	Office Clerks, General	387	389	2	1%	4.5%	\$15.70	High school diploma or equivalent	None	Short-term on-the-job training
551	Management of Companies and Enterprises	11-1021	General and Operations Managers	376	412	36	10%	4.3%	\$49.28	Bachelor's degree	Less than 5 years	None
551	Management of Companies and Enterprises	13-1199	Business Operations Specialists, All Other	330	359	29	9%	3.8%	\$29.33	High school diploma or equivalent	None	None
551	Management of Companies and Enterprises	11-3031	Financial Managers	328	357	29	9%	3.8%	\$57.96	Bachelor's degree	5 years or more	None
551	Management of Companies and Enterprises	13-2011	Accountants and Auditors	320	354	34	11%	3.7%	\$34.40	Bachelor's degree	None	None
551	Management of Companies and Enterprises	43-4051	Customer Service Representatives	273	304	31	11%	3.1%	\$18.05	High school diploma or equivalent	None	Short-term on-the-job training
551	Management of Companies and Enterprises	15-1132	Software Developers, Applications	266	286	20	8%	3.1%	\$38.37	Bachelor's degree	None	None
551	Management of Companies and Enterprises	43-3031	Bookkeeping, Accounting, and Auditing Clerks	232	259	27	12%	2.7%	\$18.89	High school diploma or equivalent	None	Moderate-term on-the-job training
551	Management of Companies and Enterprises	11-3021	Computer and Information Systems Managers	215	233	18	8%	2.5%	\$59.82	Bachelor's degree	5 years or more	None
622	Hospitals	29-1141	Registered Nurses	2,449	2,697	248	10%	26.3%	\$31.53	Associate's degree	None	None

622	Hospitals	31-1014	Nursing Assistants	552	605	53	10%	5.9%	\$11.86	Postsecondary non-degree award	None	None
622	Hospitals	31-9093	Medical Equipment Preparers	445	467	22	5%	4.8%	\$14.05	High school diploma or equivalent	None	Moderate-term on-the-job training
622	Hospitals	43-9061	Office Clerks, General	317	306	(11)	(3%)	3.4%	\$15.70	High school diploma or equivalent	None	Short-term on-the-job training
622	Hospitals	43-6013	Medical Secretaries	199	225	26	13%	2.1%	\$16.49	High school diploma or equivalent	None	Moderate-term on-the-job training
622	Hospitals	11-9111	Medical and Health Services Managers	188	206	18	10%	2.0%	\$43.80	Bachelor's degree	None	None
622	Hospitals	37-2012	Maids and Housekeeping Cleaners	160	176	16	10%	1.7%	\$10.33	Less than high school	None	Short-term on-the-job training
622	Hospitals	31-9099	Healthcare Support Workers, All Other	157	167	10	6%	1.7%	\$16.21	High school diploma or equivalent	None	None
622	Hospitals	31-1015	Orderlies	149	159	10	7%	1.6%	\$11.26	High school diploma or equivalent	None	Short-term on-the-job training
622	Hospitals	29-2034	Radiologic Technologists	149	165	16	11%	1.6%	\$29.90	Associate's degree	None	None
623	Nursing and Residential Care Facilities	31-1014	Nursing Assistants	1,610	1,700	90	6%	21.1%	\$11.86	Postsecondary non-degree award	None	None
623	Nursing and Residential Care Facilities	39-9021	Personal Care Aides	838	944	106	13%	11.0%	\$10.14	Less than high school	None	Short-term on-the-job training
623	Nursing and Residential Care Facilities	29-2061	Licensed Practical and Licensed Vocational Nurses	411	462	51	12%	5.4%	\$22.72	Postsecondary non-degree award	None	None

623	Nursing and Residential Care Facilities	29-1141	Registered Nurses	374	401	27	7%	4.9%	\$31.53	Associate's degree	None	None
623	Nursing and Residential Care Facilities	31-1011	Home Health Aides	327	401	74	23%	4.3%	\$10.45	Less than high school	None	Short-term on-the-job training
623	Nursing and Residential Care Facilities	39-9032	Recreation Workers	291	314	23	8%	3.8%	\$10.26	Bachelor's degree	None	None
623	Nursing and Residential Care Facilities	35-2012	Cooks, Institution and Cafeteria	233	257	24	10%	3.0%	\$12.78	Less than high school	None	Short-term on-the-job training
623	Nursing and Residential Care Facilities	37-2012	Maids and Housekeeping Cleaners	223	249	26	12%	2.9%	\$10.33	Less than high school	None	Short-term on-the-job training
623	Nursing and Residential Care Facilities	35-3041	Food Servers, Nonrestaurant	207	244	37	18%	2.7%	\$10.75	Less than high school	None	Short-term on-the-job training
623	Nursing and Residential Care Facilities	43-9061	Office Clerks, General	159	166	7	4%	2.1%	\$15.70	High school diploma or equivalent	None	Short-term on-the-job training
311	Food Manufacturing	53-7064	Packers and Packagers, Hand	255	299	44	17%	9.5%	\$10.07	Less than high school	None	Short-term on-the-job training
311	Food Manufacturing	51-3011	Bakers	191	269	78	41%	7.2%	\$11.81	Less than high school	None	Long-term on-the-job training
311	Food Manufacturing	51-3093	Food Cooking Machine Operators and Tenders	170	191	21	12%	6.4%	\$14.07	High school diploma or equivalent	None	Moderate-term on-the-job training
311	Food Manufacturing	41-2031	Retail Salespersons	130	157	27	21%	4.9%	\$9.93	Less than high school	None	Short-term on-the-job training
311	Food Manufacturing	41-2011	Cashiers	124	148	24	19%	4.6%	\$8.94	Less than high school	None	Short-term on-the-job training
311	Food Manufacturing	35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	101	123	22	22%	3.8%	\$9.07	Less than high school	None	Short-term on-the-job training

311	Food Manufacturing	53-7062	Laborers and Freight, Stock, and Material Movers, Hand	86	99	13	15%	3.2%	\$12.72	Less than high school	None	Short-term on-the-job training
311	Food Manufacturing	51-1011	First-Line Supervisors of Production and Operating Workers	83	103	20	24%	3.1%	\$27.57	Postsecondary non-degree award	Less than 5 years	None
311	Food Manufacturing	37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	73	88	15	21%	2.7%	\$12.03	Less than high school	None	Short-term on-the-job training
311	Food Manufacturing	43-9061	Office Clerks, General	68	76	8	12%	2.5%	\$15.70	High school diploma or equivalent	None	Short-term on-the-job training

Appendix B – Knowledge, skills and abilities needed for select occupations

The charts below show the top 20 areas of required knowledge, skills and abilities for important occupations in the fields of computer support, healthcare and manufacturing.

Computer User Support Specialists (15-1151)

Knowledge	Importance	Level
Computers and Electronics	95	85
Customer and Personal Service	88	76
Clerical	56	64
English Language	69	60
Telecommunications	61	54
Engineering and Technology	50	53
Education and Training	48	52
Mathematics	40	44
Administration and Management	50	44
Communications and Media	39	40
Design	33	38
Mechanical	32	34
Public Safety and Security	42	33
Production and Processing	31	31
Psychology	34	31
Law and Government	29	26
Personnel and Human Resources	21	23
Transportation	25	22
Sociology and Anthropology	21	20
Economics and Accounting	27	20

Skill	Importance	Level
Reading Comprehension	72	57
Active Listening	75	54
Speaking	75	54
Critical Thinking	69	54
Instructing	56	52
Writing	66	48
Monitoring	56	48
Service Orientation	53	46
Coordination	53	46
Active Learning	56	46
Time Management	60	45
Judgment and Decision Making	56	45
Social Perceptiveness	53	45
Complex Problem Solving	63	45
Learning Strategies	44	43
Quality Control Analysis	41	43
Systems Analysis	50	43
Troubleshooting	44	43
Systems Evaluation	41	41
Persuasion	41	39

Ability	Importance	Level
Oral Expression	78	59
Oral Comprehension	78	59
Written Comprehension	72	55
Near Vision	66	52
Inductive Reasoning	60	52
Written Expression	69	50
Information Ordering	66	50
Problem Sensitivity	63	50
Deductive Reasoning	63	48
Speech Clarity	63	46
Category Flexibility	56	45
Speech Recognition	63	45
Selective Attention	56	43
Flexibility of Closure	47	41
Originality	44	41
Visualization	41	41
Fluency of Ideas	47	39
Finger Dexterity	50	39
Visual Color Discrimination	41	39
Perceptual Speed	50	39

Computer Network Support Specialists (15-1152)

Knowledge	Importance	Level
Computers and Electronics	99	94
Telecommunications	70	67
Engineering and Technology	60	59
Customer and Personal Service	61	54
Clerical	48	53
Administration and Management	53	53
Education and Training	49	49
Communications and Media	50	49
English Language	58	48
Design	41	44
Mathematics	36	44
Production and Processing	40	38
Public Safety and Security	38	34
Mechanical	30	32
Personnel and Human Resources	24	28
Building and Construction	16	21
Law and Government	23	21
Psychology	21	19
Economics and Accounting	20	15
Geography	9	14

Skill	Importance	Level
Reading Comprehension	60	55
Critical Thinking	69	54
Monitoring	56	52
Active Listening	63	52
Speaking	56	50
Writing	50	50
Judgment and Decision Making	60	48
Systems Analysis	53	48
Active Learning	56	48
Learning Strategies	41	46
Complex Problem Solving	56	46
Systems Evaluation	50	46
Instructing	41	46
Troubleshooting	53	45
Quality Control Analysis	47	45
Installation	44	45
Operation Monitoring	50	45
Repairing	47	43
Social Perceptiveness	47	41
Service Orientation	38	41

Ability	Importance	Level
Oral Comprehension	72	61
Written Comprehension	66	57
Deductive Reasoning	72	57
Oral Expression	69	57
Information Ordering	63	54
Written Expression	60	54
Inductive Reasoning	69	52
Problem Sensitivity	72	50
Fluency of Ideas	50	50
Category Flexibility	50	48
Near Vision	60	46
Visualization	47	46
Selective Attention	53	45
Speech Recognition	60	45
Originality	41	45
Speech Clarity	60	43
Flexibility of Closure	50	43
Visual Color Discrimination	38	41
Finger Dexterity	50	41
Memorization	38	39

Home Health Aides (31-1011)

Knowledge	Importance	Level
Customer and Personal Service	66	57
English Language	61	42
Psychology	40	41
Education and Training	33	36
Administration and Management	38	33
Philosophy and Theology	27	30
Public Safety and Security	40	28
Medicine and Dentistry	36	28
Communications and Media	28	27
Therapy and Counseling	27	27
Personnel and Human Resources	32	24
Law and Government	34	24
Computers and Electronics	30	23
Clerical	29	23
Mathematics	27	23
Economics and Accounting	27	21
Sociology and Anthropology	20	21
Telecommunications	34	20
Transportation	34	18
Biology	17	17

Skill	Importance	Level
Active Listening	69	52
Service Orientation	66	48
Social Perceptiveness	63	46
Reading Comprehension	56	46
Critical Thinking	60	46
Monitoring	56	45
Coordination	50	43
Active Learning	50	43
Instructing	53	43
Speaking	53	43
Complex Problem Solving	50	43
Learning Strategies	50	43
Time Management	53	43
Judgment and Decision Making	50	43
Writing	53	41
Persuasion	53	41
Negotiation	47	39
Management of Personnel Resources	31	32
Operation Monitoring	28	30
Systems Evaluation	25	29

Ability	Importance	Level
Oral Expression	72	55
Oral Comprehension	69	54
Problem Sensitivity	69	50
Near Vision	63	50
Speech Clarity	56	45
Speech Recognition	56	45
Deductive Reasoning	56	45
Inductive Reasoning	60	45
Selective Attention	50	43
Information Ordering	56	43
Written Expression	53	43
Arm-Hand Steadiness	50	43
Finger Dexterity	47	43
Written Comprehension	50	43
Flexibility of Closure	47	41
Far Vision	50	41
Static Strength	47	41
Category Flexibility	50	41
Trunk Strength	47	41
Extent Flexibility	44	41

Nursing Assistants (31-1014)

Knowledge	Importance	Level
Customer and Personal Service	75	68
Psychology	66	62
English Language	70	48
Medicine and Dentistry	58	46
Education and Training	52	43
Public Safety and Security	56	37
Therapy and Counseling	50	35
Computers and Electronics	33	31
Clerical	31	30
Personnel and Human Resources	40	28
Administration and Management	43	27
Food Production	36	27
Transportation	44	25
Sales and Marketing	25	24
Mathematics	33	24
Communications and Media	34	22
Sociology and Anthropology	35	22
Philosophy and Theology	21	21
Chemistry	22	20
Foreign Language	22	19

Skill	Importance	Level
Service Orientation	75	50
Speaking	56	46
Social Perceptiveness	66	45
Reading Comprehension	53	45
Critical Thinking	53	43
Monitoring	56	43
Active Listening	66	43
Coordination	56	41
Writing	47	39
Active Learning	38	36
Instructing	41	36
Judgment and Decision Making	47	36
Complex Problem Solving	44	34
Time Management	47	32
Learning Strategies	38	32
Persuasion	35	30
Management of Personnel Resources	28	29
Negotiation	35	29
Mathematics	28	25
Quality Control Analysis	28	25

Ability	Importance	Level
Oral Comprehension	72	52
Oral Expression	66	52
Problem Sensitivity	69	48
Static Strength	56	48
Near Vision	66	46
Speech Recognition	66	46
Trunk Strength	53	43
Deductive Reasoning	53	43
Speech Clarity	56	43
Information Ordering	50	41
Arm-Hand Steadiness	50	41
Inductive Reasoning	53	41
Written Comprehension	60	41
Far Vision	41	39
Category Flexibility	50	39
Extent Flexibility	50	39
Finger Dexterity	47	39
Flexibility of Closure	35	37
Stamina	44	37
Manual Dexterity	41	36

Licensed Practical and Vocational Nurses (29-2061)

Knowledge	Importance	Level
Psychology	78	81
Customer and Personal Service	83	78
Medicine and Dentistry	90	61
Therapy and Counseling	68	57
English Language	77	55
Education and Training	59	54
Philosophy and Theology	46	54
Chemistry	56	52
Mathematics	64	49
Clerical	52	47
Sociology and Anthropology	53	45
Computers and Electronics	47	43
Administration and Management	57	42
Public Safety and Security	54	39
Law and Government	54	38
Biology	43	37
Communications and Media	36	35
Personnel and Human Resources	42	28
Transportation	19	18
Mechanical	20	18

Skill	Importance	Level
Social Perceptiveness	75	57
Speaking	75	57
Critical Thinking	72	57
Service Orientation	78	57
Coordination	75	55
Active Listening	75	55
Monitoring	75	54
Reading Comprehension	75	50
Time Management	75	48
Writing	56	46
Judgment and Decision Making	69	46
Persuasion	50	45
Complex Problem Solving	56	45
Instructing	56	45
Active Learning	60	45
Learning Strategies	53	43
Negotiation	50	43
Science	47	41
Management of Personnel Resources	50	41
Operation Monitoring	47	39

Ability	Importance	Level
Problem Sensitivity	75	57
Oral Expression	75	57
Written Comprehension	75	57
Oral Comprehension	75	57
Near Vision	69	55
Deductive Reasoning	72	54
Inductive Reasoning	66	54
Speech Recognition	72	50
Written Expression	60	50
Information Ordering	60	50
Arm-Hand Steadiness	56	48
Finger Dexterity	50	46
Speech Clarity	75	45
Static Strength	53	43
Selective Attention	53	43
Fluency of Ideas	50	43
Category Flexibility	53	43
Originality	44	41
Trunk Strength	50	41
Flexibility of Closure	50	41

Registered Nurses (29-1141)

Knowledge	Importance	Level
Psychology	80	84
Customer and Personal Service	83	73
Therapy and Counseling	72	63
Education and Training	72	59
Medicine and Dentistry	86	58
Mathematics	56	52
English Language	76	52
Biology	54	49
Sociology and Anthropology	53	48
Clerical	44	46
Philosophy and Theology	34	44
Computers and Electronics	52	44
Chemistry	42	41
Public Safety and Security	49	36
Administration and Management	44	35
Law and Government	42	34
Personnel and Human Resources	37	30
Communications and Media	36	27
Production and Processing	16	23
Foreign Language	32	21

Skill	Importance	Level
Social Perceptiveness	78	63
Reading Comprehension	72	61
Coordination	72	59
Speaking	75	57
Critical Thinking	72	57
Service Orientation	75	57
Active Listening	78	57
Monitoring	69	55
Judgment and Decision Making	69	54
Instructing	56	54
Learning Strategies	53	54
Active Learning	60	54
Writing	66	52
Time Management	50	48
Quality Control Analysis	47	46
Complex Problem Solving	60	46
Systems Evaluation	47	46
Systems Analysis	47	45
Management of Personnel Resources	47	45
Persuasion	50	45

Ability	Importance	Level
Problem Sensitivity	78	71
Inductive Reasoning	75	70
Oral Comprehension	78	68
Oral Expression	78	66
Written Comprehension	75	61
Deductive Reasoning	75	59
Near Vision	69	59
Speech Recognition	72	57
Information Ordering	69	55
Category Flexibility	60	55
Written Expression	69	55
Speech Clarity	72	54
Arm-Hand Steadiness	50	54
Flexibility of Closure	53	50
Selective Attention	53	48
Finger Dexterity	50	48
Perceptual Speed	53	46
Far Vision	53	46
Originality	47	45
Control Precision	35	45

First-Line Supervisors of Production and Operating Workers (51-1011)

Knowledge	Importance	Level
Mechanical	71	70
Production and Processing	85	64
Engineering and Technology	51	54
Administration and Management	67	54
Computers and Electronics	50	52
Education and Training	50	52
Personnel and Human Resources	55	46
Design	45	45
Mathematics	48	44
Clerical	42	43
Psychology	46	43
Customer and Personal Service	43	42
English Language	48	41
Public Safety and Security	41	38
Therapy and Counseling	31	30
Economics and Accounting	41	24
Sales and Marketing	21	23
Law and Government	17	23
Chemistry	18	21
Sociology and Anthropology	16	18

Skill	Importance	Level
Management of Personnel Resources	72	55
Critical Thinking	72	55
Time Management	72	55
Coordination	72	55
Speaking	75	55
Writing	56	54
Social Perceptiveness	63	54
Active Listening	75	54
Reading Comprehension	72	52
Monitoring	66	50
Complex Problem Solving	56	50
Judgment and Decision Making	69	46
Learning Strategies	53	46
Instructing	53	46
Operation Monitoring	53	46
Active Learning	53	46
Negotiation	53	45
Systems Analysis	47	45
Quality Control Analysis	53	45
Persuasion	56	45

Ability	Importance	Level
Oral Expression	75	57
Deductive Reasoning	75	57
Oral Comprehension	75	57
Written Expression	63	55
Inductive Reasoning	66	54
Written Comprehension	72	54
Problem Sensitivity	75	52
Information Ordering	56	52
Speech Clarity	69	50
Originality	53	50
Speech Recognition	69	48
Selective Attention	50	48
Fluency of Ideas	53	46
Perceptual Speed	53	46
Visualization	47	45
Depth Perception	31	43
Finger Dexterity	47	43
Category Flexibility	56	43
Far Vision	53	43
Control Precision	47	43

Industrial Engineering Technicians (17-3026)

Knowledge	Importance	Level
Mechanical	85	76
Engineering and Technology	77	67
Design	63	62
Computers and Electronics	61	62
Physics	59	58
Production and Processing	67	57
Mathematics	64	56
Chemistry	49	55
English Language	62	51
Education and Training	43	44
Customer and Personal Service	53	43
Public Safety and Security	56	43
Administration and Management	39	40
Clerical	40	37
Building and Construction	27	31
Law and Government	33	29
Communications and Media	18	26
Personnel and Human Resources	21	26
Psychology	22	23
Economics and Accounting	27	21

Skill	Importance	Level
Judgment and Decision Making	53	57
Reading Comprehension	75	57
Complex Problem Solving	69	55
Critical Thinking	72	55
Monitoring	60	55
Active Listening	72	55
Systems Analysis	56	54
Speaking	56	54
Writing	53	54
Mathematics	53	54
Systems Evaluation	56	54
Active Learning	50	52
Time Management	56	48
Persuasion	47	46
Operations Analysis	53	46
Coordination	47	46
Social Perceptiveness	47	45
Instructing	50	45
Science	47	45
Technology Design	50	45

Ability	Importance	Level
Oral Comprehension	75	57
Oral Expression	63	57
Inductive Reasoning	75	57
Written Comprehension	69	57
Deductive Reasoning	75	57
Near Vision	69	55
Written Expression	56	55
Problem Sensitivity	75	55
Visualization	56	54
Fluency of Ideas	56	54
Category Flexibility	60	54
Information Ordering	60	54
Originality	56	52
Mathematical Reasoning	53	52
Number Facility	53	48
Speech Recognition	56	46
Far Vision	50	45
Speech Clarity	53	45
Flexibility of Closure	50	43
Perceptual Speed	53	43

